

REMARKS

Rejection under 35 U.S.C. §103

Claims 1 and 11-12 are rejected under 35 U.S.C. §103(a) as being unpatentable over Toyama et al. (USPN 4,908,547) in view of Kiyonori (JP 62216138).

As the Examiner points out, Toyama does not disclose a light window. Claim 11 has been amended to show more clearly the location of the light reception window with respect to the seal edge of the funnel. It is respectfully submitted that FIG. 2 of Kiyonori discloses a light window at a different position on the funnel than the position utilized by claim 1 and amended claim 11 of the present invention.

For the present invention, the location of the light window with respect to the seal edge of the funnel may be approximated by measuring the face of the cathode ray tube of FIG. 2 of the present invention, which is approximately 6.0 cm. The distance from the seal edge to the light reception window of FIG. 2 of the present invention is approximately 2.3 cm.

In contrast, for Kiyonori, the location of the light window with respect to the seal edge of the funnel may be approximated by measuring the face of the cathode ray tube of FIG. 1 of Kiyonori (see p. 185 of Japanese version of Kiyonori filed in IDS on February 28, 2002), which is approximately 5.3 cm. The distance from the seal edge to the light reception window of FIG. 1 of Kiyonori is approximately 2.5 cm.

If the distance between the seal edge of the funnel and the light window of Kiyonori (x) were to be proportional to the distance between the seal edge of the funnel and the light window of the present invention, the proportion $6.0/5.3 = 2.3/x$ would yield a value of 2.03 cm. Thus, it is respectfully submitted that Kiyonori does not teach or suggest placing a light window in a similar position with respect to the sealing edge of the funnel that is utilized for the present invention.

In addition, Kiyonori does not even mention a measurement for the distance between the seal edge of the funnel and the light window, suggesting the Kiyonori does not impart importance to a particular positioning of the light window, as is recited in the present invention. Thus, it is respectfully submitted that, to ascribe an importance to a particular positioning of the light window to Kiyonori is using hindsight, which is not permitted.

Since Toyama et al. '547 does not teach or suggest using a light window and Kiyonori (JP 62216138) does not teach or suggest positioning a light window at a location within a range of 0.1-0.3d from a corner of a seal edge of a funnel, as is recited in claim 1 and amended claim 11, it is respectfully submitted that claim 1 and amended claim 11 are non-obvious and are allowable under 35 U.S.C. §103(a) over Toyama et al. (USPN 4,908,547) in view of Kiyonori (JP 62216138), alone or in combination.

Claims 12 and 13 were cancelled without prejudice or disclaimer since the features of claims 12 and 13 were incorporated into amended claim 11. Thus, the rejection of claim 12 is moot.

Claims 2-10 and 13-15 are rejected under 35 U.S.C. §103(a) as being unpatentable over Toyama et al. (USPN 4,908,547) in view of Kiyonori (JP 62216138) and further in view of Kuwabara et al. (USPN 5,952,767).

It is respectfully submitted that, since claims 2-3 and 13-15 depend from claim 1 and amended claim 11, respectively, claims 2-3 and 13-15 are non-obvious for at least the reasons that claim 1 and amended claim 11 are allowable (see above arguments).

With respect to independent claim 4, as pointed out above, Toyama does not disclose a light window. Again, as argued above, it is respectfully submitted that FIG. 2 of Kiyonori discloses a light window at a different position on the funnel than the position utilized by claim 4 of the present invention. Kuwabara et al. '767 teaches that the light windows are arranged individually on the opposite sides of each funnel 14 in the horizontal and vertical directions, i.e., which are fixed to the rear plate 9 (see lines 7-10 and 61-64 of col. 5), i.e., teaches that the light windows are not affixed to the funnel, as is recited for claim 4 of the present invention.

Thus, it is respectfully submitted that independent claim 4 is non-obvious in view of Toyama et al. '547, Kiyonori (JP 62216138), and Kuwabara et al. '767, alone or in combination. Since claims 5-7 depend from independent claim 4, claims 5-7 are respectfully submitted to be non-obvious for at least the reasons that independent claim 4 is non-obvious.

Thus, claims 1-15 are submitted to be non-obvious in view of the cited prior art. Reconsideration is respectfully requested.

Double Patenting

Claims 1-15 are rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 14 of USPN 6,400,085 in view of Kim and Kuwabara.

Since claims 1-15 of the present invention are not yet in final form, it is respectfully submitted that it is premature to execute a terminal disclaimer. Upon allowance of the claims except for a double patenting rejection, if the claims of the present invention are still held to be unpatentable over claim 14 of USPN 6,400,085 in view of Kim and Kuwabara, it is respectfully submitted that, at that time, filing a terminal disclaimer would be appropriate.

Conclusion

In accordance with the foregoing, claim 11 has been amended. Claims 12 and 13 have been cancelled. Claims 1-11 and 14-15 are pending and under consideration.

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 19-3935.

Respectfully submitted,

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